AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF THE CLAIMS

1. (Currently Amended) A method for mounting a rotatable reflector antenna having a main reflector with outermost side portions and an axial center, to reduce a radius of a swept arc of said main reflector as said main reflector is rotated about an azimuthal axis of rotation, said method comprising the steps of:

supporting said main reflector on a platform;

using a motor to rotate said platform about said azimuthal axis of rotation;

using an encoder to track said azimuthal axis of rotation and provide feedback to said motor; and

locating said main reflector on said platform such that said azimuthal axis of rotation is disposed forwardly of a plane extending perpendicularly through said axial center of said main reflector;

wherein said main reflector is fixedly supported relative to said platform such that said main reflector rotates about said ~~rotary joint and about said~~ azimuthal axis of rotation; and

wherein said azimuthal axis is maintained at a constant position at said outermost side portions of said main reflector at all times during azimuthal rotation of said main reflector.

2. (Cancelled)

3. (Cancelled)

4. (Currently Amended) A method for mounting a rotatable reflector antenna having a main reflector ~~with outermost lateral side portions and~~ with an axial center, on a mobile platform ~~an aircraft~~, in a manner which reduces a radius of a swept arc of said ~~lateral side portions of said~~ main reflector as said main reflector is rotated about an azimuthal axis of rotation, said method comprising the steps of:

supporting said main reflector on a member adjacent an outer skin of said ~~aircraft~~ mobile platform;

using a motor to rotate said member, and thereby said main reflector, about said azimuthal axis of rotation;

using an encoder to track said azimuthal axis of rotation and provide feedback to said motor; and

locating said azimuthal axis of rotation at an outermost edge of said main reflector ~~defining~~ that defines an aperture of the main reflector, wherein the aperture defines a plane extending perpendicular to said axial center of said main reflector;

wherein said main reflector is fixedly supported relative to said mobile platform such that said main reflector rotates ~~about said rotary joint and~~ about said azimuthal axis of rotation; and

wherein said azimuthal axis is maintained at a constant position at said outermost edge of the aperture ~~forwardly of said main reflector~~ at all times during rotation of said main reflector.

5. (Cancelled)

6. (Cancelled)

7. (Currently Amended) A method for mounting a rotatable reflector antenna having a curved main reflector ~~with outermost lateral side portions~~ and an axial center, to reduce a radius of a swept arc of said main reflector as said main reflector is rotated about an azimuthal axis of rotation, said method comprising the steps of:

supporting said main reflector on a platform;

using a motor to rotate said platform about said azimuthal axis of rotation;

using an encoder to track said azimuthal axis of rotation and provide feedback to said motor; and

locating said main reflector on said platform such that said azimuthal axis of rotation of said platform is forwardly of said axial center of said main reflector;

wherein said main reflector is fixedly supported relative to said platform such that said main reflector rotates ~~about said rotary joint and~~ about said azimuthal axis of rotation; and

wherein said azimuthal axis is maintained at a constant position at an outermost edge of said main reflector at all times during azimuthal rotation of said main reflector.

8. (Original) The method of claim 7, wherein said step of supporting said main reflector further comprises the step of supporting said platform adjacent an outer surface of an aircraft.

9. (Currently Amended) An antenna adapted to be rotated about an azimuthal axis of rotation in a manner which reduces the radius of an envelope within which said antenna moves during rotation of said antenna, said antenna comprising:

a curved main reflector having an axial center and outermost lateral side edges;

a platform for supporting said curved main reflector;

a motor for rotating said platform about said azimuthal axis; and

an encoder to track said azimuthal axis and provide feedback to said motor;

wherein said main reflector is fixedly supported relative to said platform such that said main reflector rotates about said rotary joint and about said azimuthal axis of rotation; and

wherein said azimuthal axis is maintained at <u>a constant position at an</u> outermost edge of [[of]] said main reflector at all times during azimuthal rotation of said main reflector.

10. (Cancelled)

11. (Cancelled)

12. (Previously Presented) The antenna of claim 9, wherein:

said antenna includes a feedhorn spaced apart from said curved main reflector; and

said platform couples said feedhorn to a transmission line using said rotary joint.

13. (Original) The antenna of claim 12, wherein said transmission line comprises a coaxial cable.

14. (Previously Presented) The method of claim 1, further comprising the step of using an elevation motor to position said main reflector at a predetermined elevation angle.

15. (Previously Presented) The method of claim 4, further comprising the step of using an elevation motor to position said main reflector at a predetermined elevation angle.

16. (Previously Presented) The method of claim 7, wherein said step of supporting said main reflector further comprises the step of using an elevation motor to position said main reflector at a predetermined elevation angle.

17. (Previously Presented) The antenna of claim 9, further comprising an elevation motor for positioning said main reflector at a predetermined elevation angle.

AMENDMENTS TO DRAWINGS

Very minor amendments have been made to the drawings to include reference numerals in Figure 2, namely, numerals 10, 12 and 16. A change in the lead line for reference numeral 102 in Figure 4 has also been made, and an "X" has been placed at the azimuthal rotation axis shown in Figure 4. It is believed that these amendments to the drawings remove the grounds for objection stated by the Examiner.